

REMARKS/ARGUMENTS

Remarks Regarding Claim Amendments

Claim 1 is canceled. Claim 2 is amended to be recast in independent form. Claim 11 has been amended to more particularly define the claimed shoulder as depending downward from the upper horizontal member. Claims 17 and 21 are amended to include subject-matter of former claim 2.

Applicant submits no new matter is added by this amendment.

Applicant submits that this amendment places the application in better condition for appeal, and entry thereof is respectfully requested.

Double Patenting

The Examiner re-stated a provisional obviousness-type double patenting rejection of claims 1 – 16 in view of Applicant's co-pending Application Serial No. 11/229,839 combined with Davies.

Applicant filed a terminal disclaimer on September 26, 2007, and requests that this provisional double patenting rejection be reconsidered and withdrawn in view thereof.

Remarks Regarding s.102 Rejections

The Examiner rejected claims 1 and 17 as being anticipated by Arbetter (U.S. Patent No. 5,189,841).

Applicant has canceled claim 1, and amended claim 17 to include limitations regarding a mullion, as introduced previously (for example) in claim 2. Applicant requests reconsideration and withdrawal of the 102 rejections in view of these amendments.

Applicant further submits that the Arbetter reference cannot render obvious the subject-matter of the rejected claims. One of the problems to be solved in

making an injection moulded frame as recited in the independent claims of the present invention is that the frame be removable from the mould after the injection process. Certain shaped articles cannot be ejected from a mould, as would be readily recognized by one skilled in the art. The presence of a mullion in an otherwise rectangular frame adds significant complexity to the mould, and this is a feature that is absent in Arbetter.

Remarks Regarding s.103 Rejections

The Examiner rejected claims 1-16 as unpatentable over Davies (U.S. Pat. No. 5,280,686) in view of Kownacki et al. (U.S. Pat. No. 6,749,797). Claims 17 and 21-23 were rejected as unpatentable over Japanese Patent Publication 2002-227551 in combination with Kownacki et al.

Regarding claims 1-16, Applicant has canceled claim 1 and amended claim 2 to be in independent form.

Applicant submits that the combination of Davies and Kownacki fails to establish a prima facie case of obviousness of the subject-matter of claim 2. Kownacki discloses a sliding door frame 12 mounted in an outer frame 10, but the frames are not of unitary injection moulded construction. The Kownacki reference teaches a casement window with an outer frame 30 and sash frame 50, each of which are constructed by gas-assist injection moulding. However, the master frame of Kownacki has no mullion, and the sash frame is not slidably mounted in the master frame. As a result, the frames 30, 50 in Kownacki can have a near-square profile (as seen in Fig. 4 of Kownacki). Thus, ejection of the part after moulding, and hollowing out the center (i.e. at cavities 42, 52) through gas-assist would present little concern. The features that may present some challenge are the depending legs (where 30 points, and just above where 88 points in Fig. 4) but these legs are fairly short and so filling them with resin (and not gas) during the gas-assist injection moulding cycle would be possible.

The profile of Davies is a completely different matter. Injection moulding the outer frame 10 would require a die with cavities for the (vertical) profiles 13, 31 and 14, 18 along each side, the mullion 33 in the centre, and the (horizontal) profiles 19, 32, 23 and 19, 34, 23 along the top and bottom. One skilled in the art would recognize that using gas-assist injection moulding to produce the frame 10 would not at all be obvious in view of Kownacki, at least because the ratio of resin-to-hollowed sections is far too low. Furthermore, it would not at all be obvious to one of skill in the art how to blow gas into the mould such that two hollowed-out voids could be provided in side-by-side relation along each of the sill (the voids where 23 and 34 points in Fig. 4), the header (voids where 77 and 37 are in Fig. 4), and the fixed jamb (voids where 31 points in Fig. 1, and void at lower left of Fig. 1). Moreover, it would not at all be obvious how the problem of ejecting the frame 10 of Davies from an injection mould could be overcome. Applicant requests reconsideration and withdrawal of the rejection of claim 2, and submits that claim 2 is allowable.

Regarding claims 3-16, Applicant submits that each of these claims depends directly or indirectly from claim 1, and is allowable for depending from an allowable base claim (as argued above).

Furthermore, regarding claim 7 (and claims depending therefrom), Applicant respectfully submits that neither Davies nor Kownacki disclose an interlacing configuration for lifting up the sash relative to the master frame. Davies specifically teaches that "there is insufficient space for the door to be lifted to release the lower edge so that the door cannot be removed in this manner" (col. 6, lines 62-65). Instead, the lower edge is positioned on the sill and the door is then pivoted about the lower edge to move the upper edge into registration with the header. A separately installed element 78 is then snap-fit into the header to hold the upper edge of the door in place (col. 7, lines 17-22). This fails to disclose the integrally injection moulded elements of claim 7. Applicant submits that claim 7 is allowable for this additional reason.

Regarding claim 17, Applicant traverses with amendment. Applicant submits that amended claim 17 includes an integrally moulded master frame comprising a mullion. The Japanese reference '551 discloses a master frame constructed of extended lineals (sill 10, header 40, left jamb 20, right jamb 30 -- col. 9, lines 45-48 of US 6,883,279). The Japanese reference '551 does not appear to disclose a mullion. Applicant notes that Fig. 2 of the '551 publication generally corresponds to Fig. 10 in US 6,883,279, and that this embodiment shows a double slider in which no fixed pane of glass is mounted. Rather, the window has an outer sliding sash 50 and an inner sliding sash 60 (col. 9, lines 50-52).

Since neither the Japanese reference nor Kownacki disclose a master frame with an integrally injection moulded mullion, Applicant submits that the combination thereof fails to make obvious the subject-matter of claim 17 (as amended). Reconsideration and withdrawal of this rejection is respectfully requested.

Furthermore, Applicant submits that the same problems regarding gas-assist injection moulding of the profiles of Davies and ejection thereof from a mould (as discussed above) would apply equally to the profiles of the sill 10, with multiple side-by-side void channels, as seen in Fig. 1 of '551 (also see portion of sill and jamb in Fig. 3 re ejection issues). Solutions to these problems would not be obvious to one skilled in the art, and for this additional reason Applicant submits that a prima facie case of obviousness of claim 17 has not been established.

Regarding claim 21, Applicant traverses with amendment. Amended claim 21 includes details regarding a mullion as recited in amended claim 17, and Applicant submits that claim 21 (as amended) is allowable over the references for at least the same reasons as amended claim 17.

Claims 22 and 23 depend from claim 21, and Applicant submits they are allowable in that they depend from an allowable base claim.


Furthermore, regarding claim 23, Applicant submits that the structures in JP '551 identified by the Examiner as corresponding to the weather buffering chamber

and the air reservoir of claim 23 are not distinct zones "substantially separated"...
by a cover member as claimed in claim 23. Applicant submits that claim 23 is
allowable for this additional reason.

Applicant respectfully submits that this application is in condition for allowance.

Respectfully submitted,

PETTA ET AL.

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